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TECH CENTER 1600/2900

SEQUENCE LISTING

<110> Luche, Ralf M.
Wei, Bo

<120> DSP-3 DUAL-SPECIFICITY PHOSPHATASE

<130> 200125.408

<140> US/09/544,525

<141> 2000-04-06

<160> 18

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 875

<212> DNA

<213> Homo sapiens

<400> 1

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acatcggcaa cttcaaagat gccagagacg cggaacaatt gagcaagaac aaggtgacac 180
atattctgtc tgtccacgat agtccagggc tatgttggag gacaagacat ttcaaagaaa 240
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ccgggggttc caggagggtg acaactggtg tgcatacat catgaccgtc actgactttg 360
gctgggagga tgccctgcac accgtgcgtg ccgggagatc ctgtgccaac cccaacgtgg 420
gcttccagag acagctccag gagtttgaga atcatgaggt ccatcagtat cggcagtggt 480
tgaaggaaga atattgagag agccctttgc aggatgcaga agaagccaaa aacattctgg 540
ccgctccagg aattctgaag ttctgggcct ttctcagaag actgtaatgt acctgaagtt 600
tctgaaatat tgcaaaccgc cagagtttag gctggtgctg ccaaaaagaa aagcaacata 660
gagtttaagt atccagtagt gatttgtaaa cttgtttttc atttgaagct gaatatatac 720
gtagtcatgt ttatgttgag aactaaggat attcttagc aagagaaaat attttccctt 780
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ccttgccgca ctgccttgtg ggtggcttgg cgctc 875

<210> 2

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2

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Phe Lys Asp Ala Arg Asp Ala Glu Gln Leu Ser Lys Asn Lys Val Thr
20 25 30
His Ile Leu Ser Val His Asp Ser Pro Gly Leu Cys Trp Arg Thr Arg
35 40 45
His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu Arg Gly

50 55 60
 Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr
 65 70 75 80
 Leu Val Ile Ala Tyr Ile Met Thr Val Thr Asp Phe Gly Trp Glu Asp
 85 90 95
 Ala Leu His Thr Val Arg Ala Gly Arg Ser Cys Ala Asn Pro Asn Val
 100 105 110
 Gly Phe Gln Arg Gln Leu Gln Glu Phe Glu Lys His Glu Val His Gln
 115 120 125
 Tyr Arg Gln Trp Leu Lys Glu Glu Tyr Gly Glu Ser Pro Leu Gln Asp
 130 135 140
 Ala Glu Glu Ala Lys Asn Ile Leu Ala Ala Pro Gly Ile Leu Lys Phe
 145 150 155 160
 Trp Ala Phe Leu Arg Arg Leu
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<210> 3
 <211> 10
 <212> PRT
 <213> Homo sapien

<400> 3
 Val His Cys Leu Ala Gly Val Ser Arg Ser
 1 5 10

<210> 4
 <211> 23
 <212> PRT
 <213> Homo sapien

<400> 4
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 1 5 10 15
 Asn Ile Leu Ala Tyr Leu Met
 20

<210> 5
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used to obtain full length cDNA encoding
 DSP-3

<400> 5
 gacctcatgc ttctcaaact cctg

<210> 6
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 6
cgatcaccag tctcacgctc c

21

<210> 7
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 7
cagaatatgt gtcaccttgt tcttgc

26

<210> 8
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 8
gcaagaacaa ggtgacacat attctg

26

<210> 9
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 9
gggaatggga tgaacaagat cctgcccg

28

<210> 10
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 10
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37

Sub
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cont

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cont

<210> 11
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 11
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 1 5 10 15
 Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe
 20 25 30
 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
 35 40 45
 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
 50 55 60
 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
 65 70 75 80
 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
 85 90 95
 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
 100 105 110
 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
 115 120 125
 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
 130 135 140
 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
 145 150 155 160
 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
 165 170

<210> 12
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 12
 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val
 1 5 10 15
 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
 20 25 30
 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
 35 40 45
 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
 50 55 60
 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
 65 70 75 80
 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
 85 90 95
 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
 100 105 110
 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
 115 120 125
 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
 130 135 140
 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe

*See
 211
 Cont*

145 150 155 160
 Glu Arg Thr Leu Gly Leu Ser Ser
 165

<210> 13
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 13
 Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp
 1 5 10 15
 Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
 20 25 30
 Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
 35 40 45
 Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
 50 55 60
 Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
 65 70 75 80
 Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
 85 90 95
 Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
 100 105 110
 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
 115 120 125
 Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys Gln Arg
 130 135 140
 Arg Gly Val Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
 145 150 155 160
 Leu Glu Thr Gln Val Leu Cys His
 165

<210> 14
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 14
 Pro Leu Ser Thr Ser Val Pro Asp Ser Ala Glu Ser Gly Cys Ser Ser
 1 5 10 15
 Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
 20 25 30
 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys Asp Met Leu
 35 40 45
 Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala Asn Cys Pro
 50 55 60
 Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val Glu Asp
 65 70 75 80
 Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile Asp Phe
 85 90 95
 Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His Cys Gln
 100 105 110
 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Arg

Sub
 Dist
 Cont
 Cont.

115 120 125
 Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys Gln Arg
 130 135 140
 Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
 145 150 155 160
 Phe Glu Ser Gln Val Leu Ala Pro His
 165

<210> 15
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 15
 Pro Val Pro Pro Ser Ala Thr Glu Pro Leu Asp Leu Gly Cys Ser Ser
 1 5 10 15
 Cys Gly Thr Pro Leu His Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
 20 25 30
 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ala Arg Arg Asp Met Leu
 35 40 45
 Asp Ala Leu Gly Ile Thr Ala Leu Leu Asn Val Ser Ser Asp Cys Pro
 50 55 60
 Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val Glu Asp
 65 70 75 80
 Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile Glu Tyr
 85 90 95
 Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His Cys Gln
 100 105 110
 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Met
 115 120 125
 Lys Lys Arg Val Arg Leu Glu Ala Phe Glu Phe Val Lys Gln Arg
 130 135 140
 Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
 145 150 155 160
 Phe Glu Ser Gln Val Leu Ala Thr Ser
 165

<210> 16
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 16
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 1 5 10 15
 Ser Tyr Arg Pro Ala Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
 20 25 30
 Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Lys Cys Glu Phe Leu
 35 40 45
 Ala Asn Leu His Ile Thr Ala Leu Leu Asn Val Ser Arg Arg Thr Ser
 50 55 60
 Glu Ala Cys Met Thr His Leu His Tyr Lys Trp Ile Pro Val Glu Asp
 65 70 75 80
 Ser His Thr Ala Asp Ile Ser Ser His Phe Gln Glu Ala Ile Asp Phe

See
 D1
 cont
 a
 cont

			85						90					95			
Ile	Asp	Cys	Val	Arg	Glu	Lys	Gly	Gly	Lys	Val	Leu	Val	His	Cys	Glu		
			100					105					110				
Ala	Gly	Ile	Ser	Arg	Ser	Pro	Thr	Ile	Cys	Met	Ala	Tyr	Leu	Met	Lys		
		115					120					125					
Thr	Lys	Gln	Phe	Arg	Leu	Lys	Glu	Ala	Phe	Asp	Tyr	Ile	Lys	Gln	Arg		
	130					135					140						
Arg	Ser	Met	Val	Ser	Pro	Asn	Phe	Gly	Phe	Met	Gly	Gln	Leu	Leu	Gln		
145					150					155					160		
Tyr	Glu	Ser	Glu	Ile	Leu	Pro	Ser	Thr	Pro	Asn							
			165						170								

<210> 17
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 17

Val	Pro	Ser	Val	Gly	Leu	Thr	Arg	Ile	Leu	Pro	His	Leu	Tyr	Leu	Gly		
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Ser	Gln	Lys	Asp	Val	Leu	Asn	Lys	Asp	Leu	Met	Thr	Gln	Asn	Gly	Ile		
		20					25					30					
Ser	Tyr	Val	Leu	Asn	Ala	Ser	Asn	Ser	Cys	Pro	Lys	Pro	Asp	Phe	Ile		
	35				40						45						
Cys	Glu	Ser	Arg	Phe	Met	Arg	Val	Pro	Ile	Asn	Asp	Asn	Tyr	Cys	Glu		
50					55					60							
Lys	Leu	Leu	Pro	Trp	Leu	Asp	Lys	Ser	Ile	Glu	Phe	Ile	Asp	Lys	Ala		
65				70					75					80			
Lys	Leu	Ser	Ser	Cys	Gln	Val	Ile	Val	His	Cys	Leu	Ala	Gly	Ile	Ser		
			85					90					95				
Arg	Ser	Ala	Thr	Ile	Ala	Ile	Ala	Tyr	Ile	Met	Lys	Thr	Met	Gly	Met		
		100					105					110					
Ser	Ser	Asp	Asp	Ala	Tyr	Arg	Phe	Val	Lys	Asp	Arg	Arg	Pro	Ser	Ile		
	115					120					125						
Ser	Pro	Asn	Phe	Asn	Phe	Leu	Gly	Gln	Leu	Leu	Glu	Tyr	Glu	Arg	Thr		
130					135						140						
Leu	Lys	Leu	Leu	Ala													
145																	

<210> 18
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 18

Met	Gly	Asn	Gly	Met	Lys	Ile	Leu	Pro	Gly	Leu	Tyr	Ile	Gly	Asn	Phe		
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Lys	Asp	Ala	Arg	Asp	Ala	Glu	Gln	Leu	Ser	Lys	Asn	Lys	Val	Thr	His		
		20					25					30					
Ile	Leu	Ser	Val	His	Asp	Ser	Pro	Gly	Leu	Cys	Trp	Arg	Thr	Arg	His		
	35				40						45						
Phe	Lys	Glu	Ser	Ile	Lys	Phe	Ile	His	Glu	Cys	Arg	Leu	Arg	Gly	Glu		
50					55					60							
Ser	Cys	Leu	Val	His	Cys	Leu	Ala	Gly	Val	Ser	Arg	Ser	Val	Ile	Leu		

See
 DI
 cont
 A1
 Cont

65 70 75 80
 Val Ile Ala Tyr Ile Met Thr Val Ile Asp Phe Gly Trp Glu Asp Ala
 85 90 95
 Leu His Thr Val Arg Ala Gly Arg Ser Cys Ala Asn Pro Asn Val Gly
 100 105 110
 Phe Gln Arg Gln Leu Gln Glu Phe Glu Lys His Glu Val His Gln
 115 120 125

a'
 cont
 subs
 D